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inner layer and an outer layer having semiconducting properties surrounding the insulating layer, said inner layer being in contact with the uninsulated element such that the inner layer has the same potential as the conductor, and said at least one winding being directly connectable to the transmission or distribution network, the voltages being across a range of transmission or distribution voltages.

Claim 2. (Amended) The plant as claimed in claim 1 wherein the at least two semiconducting layers each form essentially an equipotential surface, and wherein at least one of the layers has substantially the same coefficient of thermal expansion as the solid insulation.

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Claim 5. (Thrice Amended) The plant as claimed in claim 1 wherein the winding comprises a cable.

Claim 6. (Amended) The plant as claimed in claim 1, wherein the inner semiconducting layer is at substantially the same potential as the conductors.

Claim 7. (Amended) The plant as claimed in claim 1, wherein the outer semiconducting layer forms an equipotential surface surrounding the conductors.

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Claim 10. (Amended) The plant as claimed in claim 1, wherein at least two of said layers have substantially the same coefficient of thermal expansion.

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Claim 13. (Amended) The plant as claimed in claim 1, wherein the cable also comprises a metal screen and a sheath.

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Claim 22. (Amended) The plant as claimed in claim 1, wherein the cable has a conductor area of about between 40 and 3000 mm² and an outer cable diameter of about between 20 and 250 mm.

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Claim 33. (Thrice Amended) The plant as claimed in claim 1, wherein the electric machine includes a stator comprising a plurality of stator limitations having openings for receiving the winding, said laminations being assembled into a stack with the openings aligned, and the winding comprises a cable threaded into the openings or the stacking laminations of the stator at the manufacturing facility or at the generation plant site.

Claim 34. (Amended) An electric generator for high voltage included in a hydro-generator plant in which the generator is coupled to a turbine via shaft means, said generator comprising at least one winding including a conductor, a solid insulation covering including an inner layer having semiconducting properties; a solid insulating layer surrounding the inner layer and an outer layer having semiconducting properties surrounding the insulation layer; and wherein each winding is directly connectable to a high voltage transmission or distribution network, and the inner layer forms an equipotential surface about the conductor.

Claim 37. (Amended) A hydrogenerator plant including a rotating high voltage electric machine comprising a stator; a rotor and a winding, wherein said winding comprises

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a cable including a current-carrying conductor and a magnetically permeable, electric field confining cover surrounding the conductor, including an inner layer having semiconducting properties, a solid insulation surrounding the inner layer and an outer layer having semiconducting properties surrounding the solid insulation, said cable forming at least one uninterrupted turn in the corresponding winding of said machine, and wherein the conductor includes a plurality of insulated conductive strands and at least one uninsulated electrically conductive strand in contact with the inner layer, such that said conductive and insulating layer at the same potential.

Claim 38. (Amended) The hydrogenerator plant of claim 37, wherein the outer layer has a conductivity sufficient to establish an equipotential surface around the conductor.

✓Cancel claims 39 and 40.

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Claim 50. (Amended) A hydrogenerator plant for direct connection to a high voltage transmission or distribution network comprising: at least one rotating electric machine for high voltage coupled to a turbine via shaft means, said electric machine including at least one winding comprising a conductor and a magnetically permeable, electric field confining insulating covering surrounding the conductor including an inner layer having semiconducting properties, a solid insulation surrounding the inner layer and an outer layer having semiconducting properties surrounding the insulating layer, said conductor including at least one of a plurality of insulated conductive elements, and at least one insulated conductive element being in contact with the inner layer such that said conductor and inner